

# ENGINEERING LEADERSHIP AND INNOVATION MANAGEMENT GRADUATE CREDIT CERTIFICATE PROGRAM

Person-in-Charge	David Mazyck
Program Code	ELIM
Campus(es)	University Park World Campus

The primary goal of the Engineering Leadership and Innovation Management certificate program is to provide professionals with the knowledge and skills in the key aspects of engineering business: leading teams, identifying new business opportunities, working across international and cultural boundaries, effectively managing projects, and promoting internal innovation. The certificate program highlights the changing nature of the field of Engineering, impacted by globalization and the importance of intercultural competencies and innovation management in the workforce. Upon completion of the certificate, students will have developed attributes required by today's successful engineering leaders. Specifically, these include improved ability to lead technical teams and expanded professional skills in leadership, intercultural competence, and innovation management within the engineering profession. The twelve-credit certificate program is built from the College of Engineering approved Engineering Leadership and Innovation Management (ELIM) graduate degree program.

**Effective Semester:** Spring 2022

**Ending Semester:** Spring 2027

## Admission Requirements

Applicants apply for admission to the program via the Graduate School application for admission (<https://gradschool.psu.edu/graduate-admissions/how-to-apply/>). Requirements listed here are in addition to Graduate Council policies listed under GCAC-300 Admissions Policies (<https://gradschool.psu.edu/graduate-education-policies/>). International applicants may be required to satisfy an English proficiency requirement; see GCAC-305 Admission Requirements for International Students (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-300/gcac-305-admission-requirements-international-students/>) for more information.

Applicants must hold a baccalaureate degree in engineering, science, or a related discipline.

Applicants must have a 3.0 minimum undergraduate GPA (or equivalent). Exceptions to the minimum 3.0 grade-point average may be made for students with special backgrounds, abilities, and interests. Applicants to the Engineering Leadership and Innovation Management (ELIM) certificate must submit the following materials:

- Penn State Graduate School application form (<http://gradschool.psu.edu/prospective-students/how-to-apply/>) and nonrefundable application fee;

- A Leadership and Innovation Personal Statement that includes a statement of career and educational goals including documentation of a minimum of one year of related full-time work. Students wishing to enter the program directly from an undergraduate degree can fulfill the 1-year requirement for work experience through summer internships, summer employment, or co-op experiences plus additional experience within professional societies. Justification for this experience should be included in the Leadership and Innovation Personal Statement. The statement should be an essay (2-3 pages in length) that demonstrates the applicant's written communication skills.
- Submission of a resume
- Submission of official transcripts from all post-secondary institutions attended (<http://www.gradschool.psu.edu/prospective-students/how-to-apply/new-applicants/requirements-for-graduate-admission/>).

Admissions decisions for the program are based on the quality of the applicant's credentials. The decisions are based on a review of the complete application portfolio. During the admission process, students who appear to be better suited for another graduate level program will be encouraged to apply to the appropriate program. Graduate Record Examination (GRE) scores are not required.

## Certificate Requirements

Requirements listed here are in addition to requirements listed in Graduate Council policy GCAC-212 Postbaccalaureate Credit Certificate Programs (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-200/gcac-212-postbaccalaureate-credit-certificate-programs/>).

Code	Title	Credits
<b>Required Courses</b>		
ENGR 501	Engineering Leadership for Corporate Innovation	3
ENGR 802	Engineering Across Cultures and Nations	3
ENGR 804	Engineering Product Innovation	3
ENGR 405	Project Management for Professionals <sup>1</sup>	3
<b>Total Credits</b>		<b>12</b>

<sup>1</sup> Related project management specific courses may be substituted for ENGR 405 per approval by the ELD office.

## Courses

Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

## Learning Objectives

1. **Engineering Leadership:** Students will be able to describe leadership within the context of engineering and evaluate leadership strategies for corporate innovation.
2. **Innovation Management:** Students will be able to identify, promote, and lead opportunities for new products and businesses in alignment with an organization's strengths and weaknesses within an existing business structure.

3. **Cross Cultural Leadership:** Students will be able to demonstrate an understanding of cultural and international boundaries, effectively considering the implications of cultural and international business differences on project implementation.

## Contact

<b>Campus</b>	University Park
<b>Graduate Program Head</b>	David William Mazyck
<b>Director of Graduate Studies (DGS) or Professor-in-Charge (PIC)</b>	Dena Lang
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<b>Campus</b>	World Campus
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<b>Program Website</b>	View ( <a href="http://www.worldcampus.psu.edu/degrees-and-certificates/penn-state-online-engineering-leadership-innovation-management-certificate/overview/">http://www.worldcampus.psu.edu/degrees-and-certificates/penn-state-online-engineering-leadership-innovation-management-certificate/overview/</a> )